

Appln No.: 10/537,280

Amendment Dated: October 22, 2007

Reply to Office Action of August 22, 2007

### REMARKS/ARGUMENTS

This is in response to the Office Action mailed August 22, 2007 for the above-captioned application. Reconsideration and further examination are respectfully requested.

In the Restriction Requirement, the examiner has identified ten groups of claims as lacking unity of invention in view of the teaching of WO91/09137. Applicants have amended claim 121 and **traverse** this restriction requirement in part.

As a first matter, Applicants elect the claims of Group I, other than claim 192 (Claims 146-182 and claims 189-190) for consideration in this application. Independent claims 121 and 189 have been amended to include a limitation that the binding partner has a characteristic of patient serum TSH receptor autoantibodies. This amended claim is novel over the cited reference in which there is no mention of autoantibodies as found in patient serum. In this regard, it is noted that the human monoclonal antibody hMAb TSHR 1 has the characteristics of human patient serum TSHR autoantibodies in terms of its ability to stimulate cAMP production, to inhibit TSH binding and to bind to the TSH receptor. hMAb TSHR 1 is about 3000 times more potent than donor patient serum whole IgG in terms of cAMP stimulating activity and in terms of inhibition of TSH binding (see Table 8 in the specification) Furthermore, the binding affinity of the TSHR of the human monoclonal thyroid stimulating autoantibody of the current application

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possess unity of invention with the elected claims and therefore as to these claims the restriction requirement should be withdrawn.

In ¶ 3 of the restriction requirement, the Examiner identifies the various sequences as separate species. Applicants understand that this is a species election, and that all of the species will be maintained in the application if the generic claim is found to be allowable. With this understanding, Applicants elect the species of Seq. ID No. 1. It is further pointed out that Seq. ID No. 10 is the nucleotide sequence corresponding to the amino acid sequence of Seq. ID No. 1.

In ¶ 4, the Examiner request an election of a complete antibody. Although not expressly stated, Applicants understand this to be a species election as well. Subject to this understanding, Applicants elect the  $V_H V_L$  combination of Seq ID Nos. 1 and 6 which are found in hMab TSHR 1.

It is noted that claim 192 has been omitted by Applicants from the proposed election. This is because the binding partner in this claim is one that inactivates or renders TSH receptors unresponsive which is different from the binding partner of amended claim 121. Therefore, this modification of the restriction requirement is proposed as an Suggested Restriction Requirement.